Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Adjustment is required to calculate the risk of early pregnancy loss with COVID-19 infection or vaccination

TO THE EDITORS: I read with great interest the article published by Jacoby et al,[1] which reported risks of early pregnancy loss (EPL) before 20 weeks' gestation for pregnant women with COVID-19, based on the data collected from the Pregnancy Coronavirus Outcomes Registry (PRIORITY) cohort study. Participants included in the study were enrolled at <14 weeks' gestation, and the EPL rate was reported as 6% for both the group with COVID-19 and the group without COVID-19.

I considered that adjustment was required to calculate the EPL rate with COVID-19 to be comparable with the reference EPL rate without COVID-19. When the pregnant women enrolled in the PRIORITY study, they were both pregnant and under the investigation of COVID-19. There was a delay between their pregnancy and the possible infection that led to their enrollment in the study; the EPL risk during this period of delay was avoided in the reported study. Moreover, the period of early pregnancy consisted of weeks with high EPL risk.[2,3] Moreover, the necessity to make such an adjustment was supported by the statistics presented in the study: among those, 6 reported EPL events, 5 EPLs occurred at 7 to 12 weeks and 1 EPL at 15 weeks; none of the EPL occurred at weeks 5 and 6, which are normally considered as the weeks with the highest EPL risk.[2,3]

Suppose the participants of the study were equally distributed between week 5 (diagnosis of pregnancy) and week 14 (enrollment deadline) at their enrollment, their mean value of gestation will be 9.5 weeks. The remaining risk of EPL by gestational week 9.5 (until week 20) was estimated at around half of the overall risk (from week 5 to week 20).[3] Therefore, the adjusted EPL risk reported in the study should be doubled, which means the adjusted EPL risk should be 12% instead of 6%, which is still an acceptable level. If the authors could include the actual gestation week during enrollment in the study, it would be possible to make a more accurate estimation of the adjusted EPL risk.

Finally, I consider that such an adjustment to EPL risk calculation is not limited to the calculation of the risk for pregnant women with COVID-19. In addition, it should be applied when calculating the EPL to evaluate the impact of COVID-19 vaccination,[4] where the period between pregnancy and vaccination is unintentionally excluded. ■

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